Name:

at1110paper_practice_test (v49)

1. Expand the following expression into standard form.

$$(6x - 7)(6x + 7)$$

$36x^2 + 42x - 42x - 49$

$36x^2 - 49$

2. Expand the following expression into standard form.

$$(7x + 2)^2$$

$49x^2 + 14x + 14x + 4$

$49x^2 + 28x + 4$

3. Expand the following expression into standard form.

$$(6x + 5)(4x - 7)$$

$24x^2 - 42x + 20x - 35$

$24x^2 - 22x - 35$

4. Solve the equation.

$$10x^2 - 50x + 25 \;=\; 3x^2 + 2x + 4$$

$7x^2 - 52x + 21 = 0$

$(7x - 3)(x - 7) = 0$

$x = \frac{3}{7} \qquad x = 7$

5. Factor the expression.

$$49x^2 - 16$$

$(7x - 4)(7x + 4)$

6. Solve the equation.

$$(3x - 8)(4x + 5) = 0$$

$x = \frac{8}{3}$ $\quad$ $x = \frac{-5}{4}$

7. Factor the expression.

$$x^2 - 6x + 8$$

$(x - 4)(x - 2)$

8. Solve the equation with factoring by grouping.

$$10x^2 - 12x + 15x - 18 = 0$$

$(2x + 3)(5x - 6) = 0$

$x = \frac{-3}{2}$ $\quad$ $x = \frac{6}{5}$